

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1202	(623/17.16,17.11).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/03/05 13:09
L2	92	1 and radiolucent	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 11:18
L3	22	1 and radiopaque adj marker	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 11:23
L4	51	2 and carbon with fiber	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 11:19
L5	229	1 and expandable	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 12:27
L6	21	1 and jig	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 12:18
L7	1	6 and 5 and 4 and 3 and 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 11:20
L8	6	4 and 3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 11:29
L9	2	("6719794").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/03/05 11:29

L10	21	("20030045935"   "20030045936"   "20030093154"   "20030100950"   "5147402"   "5192327"   "5258031"   "5458638"   "5496318"   "5702449"   "5976187"   "6001130"   "6080157"   "6132464"   "6143031"   "6245108"   "6302914"   "6358254"   "6375655"   "6419703"   "6423095").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/03/05 11:50
L11	18	("3867728"   "3875595"   "4309777"   "4349921"   "4743256"   "4772287"   "4961740"   "5015247"   "5026373"   "5055104"   "5059193"   "5071437"   "5123926"   "5192327"   "5489308"   "5522899"   "5693100"   "5716416").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/03/05 12:37
L12	1052	1 and (@ad<"20021023" or @rlad<"20021023")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/05 13:10

	Document ID	Kind Code	Source	Issue Date	Pages	Image Doc
1	US 20030139813 A1		US-PGP	20030724	29	US 200301
2	US 20040034430 A1		US-PGP	20040219	8	US 200400
3	US 6712852 B1		USPAT	20040330	14	US 671285
4	US 20040064184 A1		US-PGP	20040401	15	US 200400
5	US 20040126407 A1		US-PGP	20040701	9	US 200401
6	US 20040153155 A1		US-PGP	20040805	15	US 200401

US-PAT-NO: 6712852

DOCUMENT-IDENTIFIER: US 6712852 B1

TITLE: Laminoplasty cage

----- KWIC -----

## Detailed Description Text - DETX (13):

In order to facilitate placement of an implant in a split spinous process, the implant can optionally include one or more radiopaque markers disposed therein. The radiopaque markers are configured to provide an x-ray visible reference to indicate the position of the implant with respect to an anatomical structure when the implant is positioned within an interstitial space. The markers can have virtually any configuration, and can be positioned around and/or within the implant. The position of the markers should be adapted to facilitate accurate placement of the implant in the split spinous process. Referring back to FIG. 2, the implant 10 is shown having markers 40a and 40b extending along edges 32 and 34. The markers 40a, 40b are each in the form of an elongate wire, and are disposed within the body of the implant 10. Preferably, the body of the implant 10 is formed from a radiolucent material to allow the radiopaque markers to be distinguished from the implant 10 in an x-ray image.

## Detailed Description Text - DETX (21):

The materials used for form a laminoplasty cage according to the present invention can vary. Preferably, the body is formed from a rigid, semi-rigid, or flexible radio-lucent material. More preferably, the body is formed from materials such as polymers, ceramics, composite materials, and combinations thereof. Examples of suitable polymers include polyether sulfone, polycarbonate, bioabsorbable polymers, polyaryletherketones, and carbon fiber reinforced polymers. The implant can alternatively, or in addition, be formed from a variety of metals, including titanium, titanium alloys, chrome alloys, and stainless steel.

## Claims Text - CLTX (14):

14. The medical implant device of claim 1, wherein the implant is formed from a radiolucent material.

## Claims Text - CLTX (18):

18. The medical implant device of claim 17, wherein the polymers are selected from the group consisting of polyether sulfone, polycarbonate, bioabsorbable polymers, polyaryletherketones, carbon fiber reinforced polymers, and combinations thereof.

## Claims Text - CLTX (30):

30. The medical implant device of claim 27, wherein the implant is formed from a radiolucent material.

## Current US Original Classification - COOR (1):

A61B17/11

File Edit View Tools Window Help

	Document ID	Kind Code	Source	Issue Date	Pages	Image Doc
1	US 3867728 A		USPAT	197506225	16	US 38677
2	US 5147404 A		USPAT	19920915	7	US 51474
3	US 6080155 A		USPAT	20000627	66	US 60801
4	US 6231610 B1		USPAT	20010515	6	US 62316
5	US 6241770 B1		USPAT	20010605	23	US 62417
6	US 20010010020 A1		US-PGP	20010726	19	US 20010
7	US 20020045944 A1		US-PGP	20020418	25	US 20020
8	US 6419706 B1		USPAT	20020716	18	US 64197
9	US 6443987 B1		USPAT	20020903	23	US 64439
10	US 20020138143 A1		US-PGP	20020926	35	US 20020
11	US 6478800 B1		USPAT	20021112	18	US 64788
12	US 6500206 B1		USPAT	20021231	24	US 65002
13	US 20030055503 A1		US-PGP	20030320	10	US 20030
14	US 20030083748 A1		US-PGP	20030501	11	US 20030
15	US 6595998 B2		USPAT	20030722	38	US 65959
16	US 20030139815 A1		US-PGP	20030724	35	US 20030
17	US 20030139814 A1		US-PGP	20030724	23	US 20030
18	US 6599320 B1		USPAT	20030729	28	US 65993
19	US 6610089 B1		USPAT	20030826	20	US 66100
20	US 20030171814 A1		US-PGP	20030911	25	US 20030
21	US 20030171812 A1		US-PGP	20030911	19	US 20030
22	US 6620196 B1		USPAT	20030916	20	US 66201
23	US 20030187445 A1		US-PGP	20031002	88	US 20030
24	US 20030220691 A1		US-PGP	20031127	37	US 20030
25	US 20040034430 A1		US-PGP	20040219	8	US 20040
26	US 20040064185 A1		US-PGP	20040401	18	US 20040
27	US 20040078079 A1		US-PGP	20040422	30	US 20040
28	US 20040093083 A1		US-PGP	20040513	52	US 20040
29	US 20040106996 A1		US-PGP	20040603	19	US 20040
30	US 20040117019 A1		US-PGP	20040617	39	US 20040
31	US 20040116928 A1		US-PGP	20040617		
32	US 20040126407 A1		US-PGP	20040701	9	US 20040
33	US 20040133203 A1		US-PGP	20040708		
34	US 6770074 B2		USPAT	20040803	70	US 67700
35	US 20040162616 A1		US-PGP	20040819	36	US 20040
36	US 20040167628 A1		US-PGP	20040826	30	US 20040
37	US 6805695 B2		USPAT	20041019	87	US 68056
38	US 20040210216 A1		US-PGP	20041021		
39	US 6824565 B2		USPAT	20041130	24	US 68245
40	US 20040253219 A1		US-PGP	20041216	15	US 20040
41	US 6843804 B2		USPAT	20050118	23	US 68438
42	US 20050027360 A1		US-PGP	20050203	16	US 20050

US-PAT-NO: 3867728

DOCUMENT-IDENTIFIER: US 3867728 A

\*\*See image for Certificate of Correction\*\*

TITLE: Prosthesis for spinal repair

----- KWIC -----

## Brief Summary Text - BSTX (21):

Research has shown that normal spinal discs enable angular flexion between 2.degree. and 3.degree. in everyday activity. When flexing or bending in this manner (when stooping over, for example) tensile stresses concentrate first at the edge or periphery of the disc. The central portion of the disc may not share any significant amount of this stress. If the flexion is carried to excess, as in an accidental fall, the edge stress exerted on a prosthesis may result in tearing the natural tissue which has grown into the porous fiber surfaces of the implanted disc prosthesis, which, as stated, preferably has exterior tissue-ingrowth surfaces. Repeated rupture of the tissue bond may excite adverse tissue response, irritation, or development of thick non-adherent fibrous growth. Relief from this situation can be obtained by a special form of prosthetic disc according to this invention. The core element of this special form does not have a vertically reinforced side wall; instead the side surface of the core element is preferably undented so as to create relatively flexible resilient edges which then follow the motion of adjacent vertebrae through a wider-than-normal angular movement without creating large tensile stresses in the tissues. Such as prosthetic disc may be described as a "disc for gymnasts" or for very active persons. The net effect is a spreading of the stress over a wider peripheral area so as to reduce the stress per unit area to a more acceptable level. This form of the prosthesis provides a center core which is relatively rigid or stable so far as vertical displacement or vertical loading is concerned, but it is capable of deflection angularly in lateral and anterior-posterior planes. The undented configuration of the side surface additionally avoids bulging at this portion of the prosthesis and thus avoids making painful contact with adjacent nerves.

## Detailed Description Text - DETX (27):

Another modified form of the prosthetic spinal disc 80 is illustrated in FIGS. 16 to 19. It utilizes two outer covering elements 81 and 82 that are essentially the same as elements 11 and 12 of FIG. 2. However, its core member 83 may be a single piece of biocompatible elastomer molded into a suitable shape and preferably reinforced at its side surfaces, as by the concave surface 84. The core member 83 preferably has at least a portion of its interior reinforced with fabric, for example, woven Dacron mesh, or with fibers, e.g., Dacron fiber.

## Detailed Description Text - DETX (28):

One method of forming the disc prosthesis 80 is to stack several layers of silicone elastomer, each essentially kidney-shaped but of varying overall length and width dimensions, as shown in FIG. 18. Preferably, the outer layers 90 and 91 and also in most cases the next-to-outer layers 92 and 93, are of elastomer containing reinforcing mesh 94 to strengthen those portions of the finished core element 80 to which the top element 81 and lower element 82 are secured. Then the inner layers 95, 96, and 97, which are smaller in area than the layers 90 and 91, are of unreinforced elastomer, such as the same silicone elastomer, to enable better yielding. After the stack of FIG. 18 has been made, the outer elements 81 and 82 are placed on the top and bottom of the stack of silicone layers, and the assembly is placed in a suitable press mold and cured or vulcanized, typically at about 320.degree. F. for an hour or more, at which time the outer elements 81, 82 and the layers 90 through 97 of the core have fused to form a unitary member 83 with a smoothly-curved undented or concave side surface 84. The various elements of the disc prosthesis may be further secured by stitching, preferably by X-stitches 86 near the